



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

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REMEDATION AND REDEVELOPMENT DIVISION

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INFORMATION BULLETIN #3

CENTRAL CITY PARK, Westland, Wayne County, Michigan August 2007

INTRODUCTION

This is the third in a series of information bulletins provided by the Remediation and Redevelopment Division (RRD) of the Department of Environmental Quality (DEQ). The focus of this bulletin is to keep area residents informed of DEQ field work investigations that were conducted at the Central City Park (Park) in spring 2007.

SITE OVERVIEW

Wayne County owns the Park property and used it to dispose of catch basin cleanings and street sweepings between the 1940s and 1970s; the city of Westland (formerly Nankin Township) also used portions of the property for land filling activities in the 1950s. These materials along with additional fill material deposited in the area from an unidentified source are contaminated primarily with lead. Photographs taken in 1971 documented extensive illegal landfilling practices and the presence of numerous 55-gallons drums. Since the mid-1970s, the property has been leased by the city of Westland operating as a public park.

The DEQ-RRD first learned of the lead contamination at the Park on December 23, 2002, when a Remedial Action Plan (RAP) was submitted to the DEQ by Wayne County. In the RAP, the county proposed to excavate the lead contaminated soil, consolidate it, and place a cap of clean soil over the area. The RAP was insufficient – it incorrectly identified 1,500 parts per million (ppm) as the acceptable direct contact criterion for lead, did not determine the full extent of lead contamination, and was denied by the DEQ on May 7, 2003. The current Michigan generic residential direct contact criterion for lead in soil is 400 ppm. The generic residential direct contact criteria identifies a soil concentration that is protective against adverse health effects due to long-term ingestion of and dermal (skin) exposure to contaminated soil for residential land uses. Since that time, the DEQ has been working with Wayne County and city of

Westland officials to bring about an appropriate response to the conditions at the Park. The DEQ has reviewed several work plans and provided sampling guidance to Wayne County. The Park was closed and fenced by the city of Westland in December 2006 to restrict access to the Park.

CURRENT STATUS/DEQ ACTIONS

To facilitate progress, assist in addressing contamination at the Park, and to determine if the wastes portrayed in the 1971 photographs remain buried at the Park, the DEQ conducted extensive geophysical evaluations and soil and groundwater investigations from April 24 through May 4, 2007. Specifically, 56 soil borings were installed at the Park to a depth where groundwater was encountered (typically eight feet below ground surface). 94 soil samples and 56 water samples were selected for laboratory analysis for the following contaminants: volatile organic compounds (VOC), semi-volatile organic compounds (SVOC), polyaromatic hydrocarbons (PAH), base neutral acids (BNA), polychlorinated biphenyls (PCB), metals, and pesticides. Analytical results indicate:

- Some soil and groundwater contamination is present above residential drinking water criteria and groundwater surface water interface (GSI) criteria (GSI criteria are protective for human health and aquatic organisms in the surface water). Risks to city of Westland drinking water are low since the area is supplied with municipal water and private residential drinking water wells are not utilized in this area. Contamination above the GSI criteria however, will need to be addressed in the future.
- **Pesticides/BNA in Soil:** Soils are not impacted above the generic residential direct contact criteria for pesticides and BNAs in soil.
- **Arsenic in Soil:** Eight samples exceeded the generic residential direct contact criteria for arsenic in soil of 7.6 ppm, but all were below naturally occurring arsenic levels typically encountered in

Wayne County. Results ranged from 7.7 ppm to 13 ppm.

- **Lead in Soil:** Lead was detected in 66% of the 94 soil samples analyzed above generic residential direct contact criteria for lead in soil of 400 ppm. Lead was detected throughout the park at levels ranging from 400 ppm to 9,100 ppm.

- **PAH in Soil:** Seven borings exceeded the generic residential direct contact criteria for PAHs in soil. These borings are within the area of the park impacted by lead.

- **PCB in Soil:** PCBs in soils were detected above the generic residential direct contact criteria of 4 ppm in 3 borings ranging from 5 ppm to 6.8 ppm. In two of the three borings, PCBs are present at a depth of three feet or lower below ground surface; in the other soil boring, taken on the south side of the Park adjacent to the woods, PCBs are present at a depth of one foot below ground surface.

- **Mercury in Soil:** At one soil boring location taken at a depth of 2½ feet below the ground surface, mercury in soils was detected at 50 ppm, exceeding the generic residential groundwater contact protection criteria of 47 ppm and the soil volatilization to indoor air criteria of 48 ppm. Generic residential groundwater contact protection criteria for soils addresses contamination in soils leaching to groundwater that would contaminate groundwater at levels that would represent a hazard to utility workers working in the groundwater. Soil volatilization to indoor air criteria addresses the migration of chemicals from soil into air within a structure. This boring is not located near any structures and therefore does not present a current risk.

- **Pesticides, PAH, PCB, VOC, and SVOC in Ground-water:** Exceedances for groundwater contact protection criteria were limited to one boring for pesticides, SVOCs, and VOCs. Exceedances for PAHs for groundwater contact protection criteria were limited to five borings in various locations. Exceedances for PCBs for groundwater contact protection criteria were limited to two borings in various locations.

- **Methane in Soil Gas:** Methane is a common byproduct of the decomposition of wastes at landfills; therefore, methane field screening was conducted in all borings and was detected at levels ranging from 1% to 81% in soil gas. Additional investigation of methane and an assessment of the potential for off-site migration of methane will need to be performed.

- **Drums:** The wastes encountered in the borings were landfill materials; no evidence of the 55-gallon drums pictured in the 1971 Park photograph was found.

CLARIFICATION OF KEY INFORMATION

The following key information clarifies important facts about this site:

- Wayne County is responsible for the remediation of the property both as owner and through its historical disposal activities. The city of Westland is responsible for the remediation of the property through its historical disposal activities and, as an operator of the property, is obligated by state environmental law to protect the public from harmful exposures on the property ("Due Care" obligations).

- The current Michigan residential direct contact criterion for lead is 400 ppm. The direct contact criterion for lead at industrial or commercial properties is 900 ppm. The residential direct contact criterion for lead will be used in delineating the extent of contamination and used in determining future remedial activities.

SCHEDULE

The results of the DEQ investigation were recently provided to Wayne County and the city of Westland to assist them in identifying potential risks at the Park. Wayne County and city of Westland officials are currently evaluating the results and plan to identify an appropriate remedial action and to expedite its implementation. Throughout this process, the DEQ will continue to provide oversight and guidance as the development and implementation of cleanup plans proceeds.

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